The background papers on the candidate national program priorities are intended to initiate further discussion. When priorities are selected more detailed strategies with in-depth background information, numerical targets, schedules, milestones and performance measures will be developed.

Proposed Priority: Fuels Management Facilities

Universe & Types of Facilities
The Census of Manufacturers indicates that there are 10,000 establishments in this sector while Dun and Bradstreet indicates that there could be as many as 39,055. EPA data systems contain environmental compliance information on 6,423 facilities. Approximately eighty percent are small businesses. This sector includes all or a subset of the following types of facilities: petroleum bulk stations and terminals, petroleum product wholesalers, pipelines, fuel distributors and retailers, airports, rail and marine shipping, manufacturing operations and commercial, institutional establishments, and transmix facilities (does not include auto service centers).

Geographic Range
Nationwide with concentrations in TX, CA, LA, OK, KS, PA, MO, NC, FL, IL, NJ and NY.

Environmental Risks
Of U.S. manufacturing industries, this combined sector emits the largest amount of Volatile Organic Compounds (VOCs, 763,000 tons/year) and it also ranks among the highest for toxic air releases. Additionally, spills to surface waters, and leaks to soils and ground water, are also a major concern. Nearly four and a half million gallons of liquid petroleum were spilled from above-ground tanks during '87 - '95. Of 38 states surveyed for the 1998 National Water Quality Inventory 18 (terminals) and 13 (pipelines and sewer lines) states ranked spills from these sources as a top cause of ground water contamination.

According to Department of Transportation's (DOT) Office of Pipeline Safety more than 6,300,000 gallons of liquid petroleum and other hazardous liquids were reported spilled annually (only spills over 2,100 gallons must be reported). During the 1990's 67,000,000 gallons of crude oil and petroleum products leaked from pipelines. Spills from pipelines and their associated compression stations and breakout tanks contaminate surface water, ground water, soil and they emit air pollutants.

Of the more than 200 toxic chemicals associated with petroleum spills, some of the most common are benzene (a known carcinogen), toluene (neurotoxin), ethylbenzene (liver and kidney and developmental toxicity), xylenes (neurotoxin) and methyl tert-butyl ether (MTBE, toxic to kidneys), all of which are listed as hazardous air pollutants. According to the 1999 Toxic Release Inventory (TRI) data, 48 chemicals were released by this combined sector. Additionally, liquid petroleum products contain VOCs (which are precursors to smog), sulfur (one of the acid rain contributors), nitrogen (a primary smog precursor), and toxic metals (i.e., chromium, nickel and

vanadium). Crude oils and semi-refined products may contain carcinogenic polycyclic aromatic hydrocarbons (PAH) and other toxic substances.

23 percent of all US methane emissions (a greenhouse gas) are emissions from natural gas pipelines. Mercury and Polychlorinated Biphenyls (PCB) contamination in soil and groundwater also occur at compressor stations and metering sites along pipelines. Methyl tert-Butly Ether (MTBE), a gasoline additive, has been found in groundwater contaminated by pipeline spills. Drinking contaminated water or breathing MTBE can adversely affect the nervous system, cause nausea, and nose and throat irritation.

Noncompliance Information

Some of the worst incidents have been violations covered under Spill Prevention Control and Countermeasure (SPCC) requirements of the Oil Pollution Act (OPA). Spill occurrence has not declined since the implementation of OPA. Spill violations addressed in the $35 million Koch Industries and Colonial Pipeline settlements illustrate problems associated with aging pipeline infrastructure. About 30% of reported spills are caused by poor maintenance (corrosion, worn valves and gaskets). Similar problems exist at aging fuel storage facilities.

Based on the data in the On-line Tracking Information Site (OTIS), in the past five years approximately 16,000 inspections (mostly under the Clean Air Act and mostly conducted by the states) at over 3,400 facilities inspected have resulted in over 1,000 enforcement actions (more than one enforcement action may occur at any facility) for this sector.

It is estimated that only 14% of storage terminals subject to TRI reporting requirements have actually submitted reports. Contraction in the number of storage facilities (24% fewer) during the 1990' s along with an increase in sales (8% increase from 1992 to 1997) indicates that some facilities may have increased emission levels without obtaining the necessary air permit changes. The compliance status of facilities subject to new NESHAPs rules is unknown given that EPA has compliance data on fewer than half of the more than 260 potentially subject facilities.